UNITED STATES PATENT AND TRADEMARK OFFICE

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10/787,515	02/26/2004	David James Clarke	ID-910 (80233)	6465

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EXAMINER
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ART UNIT	PAPER NUMBER
2167	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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	Application No.	Applicant(s)
Office Action Summary	10/787,515	CLARKE ET AL.
	Examiner	Art Unit	
	ROBERT TIMBLIN	2167	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 March 2011*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5,7-11,13,14,16-19 and 21* is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5,7-11,13,14,16-19 and 21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All   b)☐ Some * c)☐ None of:

   1.☐ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

This Office Action corresponds to application 10/787,515 which was filed 2/26/2004.

Response to Amendment

The Applicants' amendment, filed 3/11/2011, has been received, entered into the record and considered. Claims 1, 9, 14, and 17 are amended. As a result of the amendment, claims 1-5, 7-11, 13-14, 16-19, and 21 are pending in the application.

Claim Objections

Claims 1, 3, 9, 10, 17, and 18 are objected to because they recite the phrases "based thereon" and "therewith". Herein it may be unclear what "thereon" and "therewith" refers to and it is suggested that corrective amendments be implemented to distinctly recite where the desired account is based and also what "therewith" specifically pertains to.

Examiner submits that claims 1-3, 5, and 9 recite language which does not necessarily require a following function to be performed. For example, the claims recite implied features using the word "for" (e.g. "for storing", "for receiving", "for retrieving", etc) which imply future acts to occur rather than positively reciting them as necessary to occur. Examiner respectfully requests positive recitation of these elements in the claims.

Claim 17 is objected to because it recites a medium having instructions; however

no execution of the instructions is recited to positively impart functionality.

Appropriate correction of the aforementioned is respectfully requested.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 9 and its depending claims are rejected under 35 U.S.C. 101 because they

may be seen to purport to functional descriptive material per se (impermissible as per

MPEP 2106.01).

In particular, claim 9 is directed towards a device that can best be interpreted as

a server (e.g. specification, paragraph [0029]), or software per se. Accordingly, one of

ordinary skill in the art could interpret a server to be defined as a program that services

client requests.

Furthermore, the device of claim 9 is defined to include only software modules

and nonfunctional descriptive material (i.e. database). Accordingly, the device as

recited in claim 9 appears to lack the necessary hardware structure to define a statutory

machine and thus is found nonstatutory under 35 U.S.C. 101.

Claim 17 and its respective dependent claims are rejected under 35 U.S.C. 101 because they are directed towards a computer-readable medium that may be broadly interpreted to cover both forms of non-transitory tangible media as well as transitory media (e.g. signals per se) in view of the ordinary and customary meaning of computer readable media.   When the broadest reasonable interpretation of a claim covers a signal per se, it must be rejected under 35 U.S.C. 101 as covering non-statutory subject matter.

In overcoming the 35 U.S.C. 101 rejection, Applicant may add the limitation "non-transitory" to the claim to thereby cover only statutory embodiments and obviate the interpretation of the claim being directed towards transitory media.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 2, 3, 9, 10, 14, 17 and 18 rejected under 35 U.S.C. 103(a) as being unpatentable over Rierden et al. (hereinafter Rierden, US 5,978,577) in view of Jenkins et al. ('Jenkins' hereafter, U.S. Patent 6,014,667).

Regarding claim 1, **Rierden** teaches a communications system comprising:

a plurality of account databases (160) each for storing information associated with different accounts (See column 2, lines 22 - 29 "Cable system operators typically maintain large databases containing a variety of subscriber, product and billing information...include subscriber accounts...It is often desirable to distribute this information across a network of databases whether or not they are located at the same physical location.");

a central database [170] for storing location information associating each account with a respective account database [data servers] (See column 8, lines 30-37 and col. 28 lines 49-51 wherein the X-Ref servers are a resource used for determining where specific data resides and see FIG 5. showing the different account information being stored on the data servers.), and also for storing shared system setup information (col. 8 lines 37-38 and 55-57; e.g. global tables indicating available and accessible servers contained in Xref servers);

at least one communications device [transaction generators 120] for accessing account information (See column 5, lines 45-48 "The transaction generators 120 in the system of the present invention may be any devices capable of receiving input from a human user and transmitting that input to the Data Directory Servers (DDSs) 150."); and

an interface device [DDS] for

receiving an account access request from said at least one communications device for a desired account (See column 6, line 8 "After receiving a client request..."),

retrieving account location information from said central database for the desired account (see column 6, lines 8-10 "...the selected DDS 150 first locates the appropriate

server 160…" and see column 8, lines 55 – 57 "There is also provided an Xref Server Table (global) which identifies all known and accessible Xref Servers 170."), and initially interfacing said at least one communications device with said respective account database (col. 7 lines 62-65 wherein the data servers 160 are accessed by transaction generators 120 through DDS 150) associated with the desired account based thereon (see column 6, lines 10-12 "…it then submits the client request to the selected server and finally the DDS 150 returns the result to the submitting client 120." And see column 9, lines 22 – 25 "Alternatively, the result set may pass through the DDS 150 to the client 120 without any additional processing on the part of the DDS 150…" This is providing an interface between the account database and the communication device.), and

caching the account location information (col. 9 lines 11-17 where in response to a client request, DDS submits a request to the XRef Server 170 to retrieve the necessary data (including locations of data) for processing the transaction. Because the DDS retrieves location data, it can be seen as cached, or stored therein)

said interface device also retrieving and caching the shared system setup information (col. 9 lines 8-9; e.g. global tables indicating available and accessible servers are loaded in the DDS) for use in interfacing (col. 9 lines 15-25) said at least one communication device (120) with said respective account database (160).

Rierden may be seen to cache account location information, but does not appear to teach using the cached account location information for interfacing said at least one communications device with said respective account database subsequent to the initial interfacing of the at least one communications device.

Jenkins, however, teaches using the cached account location information for interfacing said at least one communications device with said respective account database subsequent to the initial interfacing (col. 6 lines 63-66) of the at least one communications device (abstract, col. 10 lines 51-63) for caching location information for later referrals in subsequent requests.

Accordingly, in the same field of endeavor, (i.e. distributed database systems), it would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because by caching location information as taught by Jenkins, Rierden would have been able to reduce network traffic and server queries (needed by Rierden, col. 8 lines 47-49 and 9 lines 11-12 when they describe retrieving in per transaction approach) by having necessary data on hand.

Regarding claim 2, **Rierden** teaches said interface device comprises a caching module for caching the account location information. (See column 28, lines 51- 54 "In a second embodiment, the DDS itself maintains one or more internal tables which indicate, based upon a particular customer number, the server containing the associated data." Storing in a local table on the DDS is considered caching the account location information.).

Regarding claims 3, 10, and 18, **Rierden** teaches said at least one communications device has an operating protocol associated therewith, and wherein

said interface device comprises at least one protocol interface module for communicating with said at least one communications device [transaction generators] using the operating protocol. (See column 2, lines 49 – 53 "Communication techniques and protocols which are known in the art are employed to allow the transaction generators to communicate with the servers. For example, Eterne™ may be used when both client and server are PC-based processors.").

Regarding claim 9, **Rierden** teaches an interface device [DDS] for interfacing at least one communications device [transaction generators] with a plurality of account databases [data servers] each for storing information associated with different accounts (See column 4, lines 11-16 "According to one embodiment of the invention, these and other objects of the invention are achieved through the use of at least one Data Directory Server (DDS) located between one or more transaction generators and one or more data servers. The DDS efficiently routes transactions and provides data location functions." and see FIG 5. showing the different account information being stored on the data servers.); the interface device comprising:

a control module [DDS functionality] for receiving an account access request from the at least one communications device [transaction generator] for a desired account (See column 5, lines 45-48 "The transaction generators 120 in the system of the present invention may be any devices capable of receiving input from a human user and transmitting that input to the Data Directory Servers (DDSs) 150."),

retrieving account location information [locates the appropriate server] associating the desired account with a respective account database from a central database (Xref server and see column 6, lines 8 – 10 "After receiving a client request, the selected DDS 150 first locates the appropriate server 160 for execution for the request…"), and

initially interfacing the at least one communications device (col. 7 lines 62-65 wherein the data servers 160 are accessed by transaction generators 120 through DDS 150) with the respective account database associated with the desired account based thereon (see column 6, lines 10-12 "…it then submits the client request to the selected server and finally the DDS 150 returns the result to the submitting client 120." And see column 9, lines 22 – 25 "Alternatively, the result set may pass through the DDS 150 to the client 120 without any additional processing on the part of the DDS 150…" This is providing an interface between the account database and the communication device.), and

a caching module [internal table, part of the DDS] coupled to said control module [DDS] for caching the account location information (col. 9 lines 11-17 where in response to a client request, DDS submits a request to the XRef Server 170 to retrieve the necessary data (including locations of data) for processing the transaction. Because the DDS retrieves location data, it can be seen as cached, or stored therein)

said control module using the cached account location information for subsequently interfacing [transmitting to Server A] the at least one communications device with the respective account database. (See column 28, lines 57 – 61 "…the

command stream generated by the DDS is transmitted to Server A which executes the commands and returns the record for Joe Smith through the DDS, in passthrough mode, to the requesting client.");

the central database further storing shared system setup information (col. 8 lines 37-38 and 55-57; e.g. global tables indicating available and accessible servers contained in Xref servers), and said control module also retrieving the shared system setup information (col. 9 lines 8-9; e.g. global tables indicating available and accessible servers are loaded in the DDS) for use in interfacing (col. 9 lines 15-25) the at least one communications device (120) with the respective account database (160), and said caching module caching the retrieved shared system setup information (col. 9 lines 8-9; e.g. global tables indicating available and accessible servers are loaded in the DDS).

Rierden may be seen to cache account location information, but does not appear to teach using the cached account location information for interfacing said at least one communications device with said respective account database subsequent to the initial interfacing of the at least one communications device.

Jenkins, however, teaches using the cached account location information for interfacing said at least one communications device with said respective account database subsequent to the initial interfacing (col. 6 lines 63-66) of the at least one communications device (abstract, col. 10 lines 51-63) for caching location information for later referrals in subsequent requests.

Accordingly, in the same field of endeavor, (i.e. distributed database systems), it would have been obvious to one of ordinary skill in the data processing art at the time of

the present invention to combine the teachings of the cited references because by
caching location information as taught by Jenkins, Rierden would have been able to
reduce network traffic and server queries (needed by Rierden, col. 8 lines 47-49 and 9
lines 11-12 when they describe retrieving in per transaction approach).

Regarding claim 14, **Rierden** teaches a method for interfacing at least one
communications device [transaction generators] with a plurality of account databases
[data servers] each for storing information associated with different accounts (See
column 4, lines 11-16 "According to one embodiment of the invention, these and other
objects of the invention are achieved through the use of at least one Data Directory
Server (DDS) located between one or more transaction generators and one or more
data servers. The DDS efficiently routes transactions and provides data location
functions." and see FIG 5. showing the different account information being stored on the
data servers.); the method comprising:

receiving an account access request from the at least one communications
device [transaction generator] for a desired account (See column 5, lines 45-48 "The
transaction generators 120 in the system of the present invention may be any devices
capable of receiving input from a human user and transmitting that input to the Data
Directory Servers (DDSs) 150.");

retrieving account location information [locates the appropriate server]
associating the desired account with a respective account database and shared system
setup information (col. 23 lines 23-49) from a central database (see column 6, lines 8 –

10 "After receiving a client request, the selected DDS 150 first locates the appropriate

server 160 for execution for the request...");

initially interfacing the at least one communications device with the respective

account database (col. 7 lines 62-65 wherein the data servers 160 are accessed by

transaction generators 120 through DDS 150) associated with the desired account

based upon the retrieved account location information (see column 6, lines 10-12 "...it

then submits the client request to the selected server and finally the DDS 150 returns

the result to the submitting client 120." And see column 9, lines 22 – 25 "Alternatively,

the result set may pass through the DDS 150 to the client 120 without any additional

processing on the part of the DDS 150..." This is providing an interface between the

account database and the communication device.) and the retrieved shared system

setup information (col. 23 lines 23-49); and

caching the account location information (col. 9 lines 11-17 where in response to

a client request, DDS submits a request to the XRef Server 170 to retrieve the

necessary data (including locations of data) for processing the transaction. Because the

DDS retrieves location data, it can be seen as cached, or stored therein).

Rierden may be seen to cache account and setup and location information, but

does not appear to teach using the cached setup account location information for

interfacing said at least one communications device with said respective account

database subsequent to the initial interfacing of the at least one communications device.

Jenkins, however, teaches using the cached account location information for

interfacing said at least one communications device with said respective account

database subsequent to the initial interfacing (col. 6 lines 63-66) of the at least one communications device (abstract, col. 10 lines 51-63) for caching location information for later referrals in subsequent requests.

Accordingly, in the same field of endeavor, (i.e. distributed database systems), it would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because by caching location and setup information as taught by Jenkins, Rierden would have been able to reduce network traffic and server queries (needed by Rierden, col. 8 lines 47-49 and 9 lines 11-12 when they describe retrieving in per transaction approach) by having necessary data on hand.

Regarding claim 17, **Rierden** teaches a computer-readable medium having computer executable instructions for interfacing at least one communications device [transaction generators] with a plurality of account databases [data servers] each for storing information associated with different accounts (See column 4, lines 11-16 "According to one embodiment of the invention, these and other objects of the invention are achieved through the use of at least one Data Directory Server (DDS) located between one or more transaction generators and one or more data servers. The DDS efficiently routes transactions and provides data location functions." and see FIG 5. showing the different account information being stored on the data servers.);   the computer-readable medium comprising:

a control module [DDS functionality] for receiving an account access request from the at least one communications device [transaction generator] for a desired account (See column 5, lines 45-48 "The transaction generators 120 in the system of the present invention may be any devices capable of receiving input from a human user and transmitting that input to the Data Directory Servers (DDSs) 150."),

retrieving account location information [locates the appropriate server] associating the desired account with a respective account database from a central database (Xref server and see column 6, lines 8 – 10 "After receiving a client request, the selected DDS 150 first locates the appropriate server 160 for execution for the request..."), and

initially interfacing the at least one communications device (col. 7 lines 62-65 wherein the data servers 160 are accessed by transaction generators 120 through DDS 150) with the respective account database associated with the desired account based thereon (see column 6, lines 10-12 "...it then submits the client request to the selected server and finally the DDS 150 returns the result to the submitting client 120." And see column 9, lines 22 – 25 "Alternatively, the result set may pass through the DDS 150 to the client 120 without any additional processing on the part of the DDS 150..." This is providing an interface between the account database and the communication device.), and

a caching module [internal table, part of the DDS] coupled to said control module [DDS] for caching the account location information (col. 9 lines 11-17 where in response to a client request, DDS submits a request to the XRef Server 170 to retrieve the

necessary data (including locations of data) for processing the transaction. Because the DDS retrieves location data, it can be seen as cached, or stored therein)

said control module using the cached account location information for subsequently interfacing [transmitting to Server A] the at least one communications device with the respective account database. (See column 28, lines 57 – 61 "...the command stream generated by the DDS is transmitted to Server A which executes the commands and returns the record for Joe Smith through the DDS, in passthrough mode, to the requesting client.");

the central database further storing shared system setup information (col. 8 lines 37-38 and 55-57; e.g. global tables indicating available and accessible servers contained in Xref servers), and said control module also retrieving the shared system setup information (col. 9 lines 8-9; e.g. global tables indicating available and accessible servers are loaded in the DDS) for use in interfacing (col. 9 lines 15-25) the at least one communications device (120) with the respective account database (160), and said caching module caching the retrieved shared system setup information (col. 9 lines 8-9; e.g. global tables indicating available and accessible servers are loaded in the DDS).

Rierden may be seen to cache account location information, but does not appear to teach using the cached account location information for interfacing said at least one communications device with said respective account database subsequent to the initial interfacing of the at least one communications device.

Jenkins, however, teaches using the cached account location information for interfacing said at least one communications device with said respective account

database subsequent to the initial interfacing (col. 6 lines 63-66) of the at least one

communications device (abstract, col. 10 lines 51-63) for caching location information

for later referrals in subsequent requests.

Accordingly, in the same field of endeavor, (i.e. distributed database systems), it

would have been obvious to one of ordinary skill in the data processing art at the time of

the present invention to combine the teachings of the cited references because by

caching location information as taught by Jenkins, Rierden would have been able to

reduce network traffic and server queries (needed by Rierden, col. 8 lines 47-49 and 9

lines 11-12 when they describe retrieving in per transaction approach).

Claims 4, 5, 7, 8, 11, 13, 16, 19 and 21 are rejected under 35 U.S.C. 103(a) as

being unpatentable over Rierden and Jenkins and further in view of Smith et al.

(hereinafter Smith, US 6,871,215).

Regarding claims 4, 11, and 19, **Rierden** teaches a communication system

substantially as claimed. **Rierden** does not explicitly disclose said at least one protocol

interface module comprises at least one of a wireless access protocol (WAP) module, a

post office protocol (POP) module, and a hypertext markup language (HTML) module.

However, **Smith** teaches said at least one protocol interface module comprises at least

one of a wireless access protocol (WAP) module, a post office protocol (POP) module,

and a hypertext markup language (HTML) module (See column 2, lines 30-34 "The

universal mail application preferably includes multiple front-end user interfaces from

WAP and HDML for installation on relevant wireless devices, e.g., on a PQA for PDS

software, or on standard HTML interface.")

It would have been obvious to one with ordinary skill in the art at the time of the

invention to combine the teachings of **Smith** with **Rierden and Jenkins** because **Smith**

also relates to handling a plurality of account files, and by including the various

protocols mentioned in **Smith**, the system is more robust by being able to handle a

variety of newer protocols, some of which allow for e-mail and internet functionality. It is

for this reason that one of ordinary skill in the art would have been motivated to include

said at least one protocol interface module comprises at least one of a wireless access

protocol (WAP) module, a post office protocol (POP) module, and a hypertext markup

language (HTML) module.

It would have been obvious to one with ordinary skill in the art at the time of the

invention to combine the teachings of **Smith** with **Rierden and Jenkins** because **Smith**

also relates to handling a plurality of account files and by including the operating

protocol interface of **Smith**, various disparate protocols can be interpreted, then used by

the system providing greater functionality. It is for this reason that one of ordinary skill

in the art would have been motivated to include said at least one communications

device has an operating protocol associated therewith, and wherein said interface

device comprises at least one protocol interface module for communicating with said at

least one communications device using the operating protocol.

Regarding claim 5, the combination of **Smith** and **Rierden/Jenkins** additionally discloses said interface device further comprises a control module for interfacing said at least one protocol interface module with said central and account databases. (See **Smith** page 3, paragraph [0028] "The mail bridge 100 further includes an account information store 171 for storing account information for e mail accounts at the Internet mail servers, and an account information module that is used to manage and retrieve the account information in the account information store 171." The mail bridge performs the function of the control module mentioned in the claim.)

Regarding claim 7, the combination of **Smith** and **Rierden/Jenkins** additionally teaches said at least one communications device comprises at least one mobile wireless communications device. (See **Smith** column 2, lines 25-29 "The present invention relates to a universal mail application for wireless device application which allows a user the ability to access and view email messages from a personal account using Internet Message Access Protocol (IMAP)." The device is a mobile wireless communication device.)

Regarding claims 8, 13, 16, and 21, the combination of **Smith** and **Rierden/Jenkins** additionally teaches the accounts comprise electronic mail (e-mail) accounts. (See **Smith** column 1, lines 41-44 "In accordance with the principles of the present invention, a universal mail module comprises a plurality of e mail account

information files relating to a corresponding plurality of e mail accounts of a wireless

subscriber.")

Response to Arguments

Applicant's arguments with respect to claims 1, 9, 14, and 17 have been

considered but are moot in view of the new ground(s) of rejection. Although Rierden

may not be seen to clearly teach using cached location information for subsequent

interfacing, Jenkins is found to render this element obvious as described above.

Conclusion

The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure for pertaining to caching location information:

U.S. Patent Application 2003/0191709 filed by Elston et al.

U.S. Patent 6,370,549 issued to Saxton.

Contact Information

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to ROBERT TIMBLIN whose telephone number is

(571)272-5627. The examiner can normally be reached on M-Th 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, John R. Cottingham can be reached on 571-272-7079. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ROBERT TIMBLIN/

Primary Examiner, Art Unit 2167